Title (en)

Image pickup apparatus, density measuring optical system and scanning optical microscope

Title (de)

Bildaufnahmevorrichtung, System zur Messung der optischen Dichte und optisches Abtastmikroskop

Title (fr)

Capteur d'images, système optique de mesure de la densité et microscope optique à balayage

Publication

EP 0785447 A2 19970723 (EN)

Application

EP 97100355 A 19970110

Priority

- JP 768596 A 19960119
- JP 768496 A 19960119
- JP 1219996 A 19960126

Abstract (en)

An apparatus which can correctly measure and observe optical information obtained from an object by removing a boundary diffraction wave generated from an edge of a pupil of an image pickup lens or an objective lens is provided. An image pickup lens forms a spatial image of an object on a position provided with a microlens array. A plurality of microlenses are arranged in this microlens array, for pixel-separating the spatial image. Light components from the microlenses pass through corresponding microapertures respectively, to be incident upon corresponding photoreceptors respectively for forming images. The microlenses project images of a diaphragm (pupil) of the image pickup lens on the corresponding microapertures respectively. The diameters of the respective microapertures are set to be smaller than the images of the diaphragm of the image pickup lens, so that a boundary diffraction wave which is generated from an edge of the diaphragm of the image pickup lens is blocked by a microaperture array plate and prevented from propagation to the photoreceptors. <IMAGE>

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G02B 5/00; G02B 3/00

IPC 8 full level

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CPC (source: EP US)

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